

Claims

1. A low-pressure discharge lamp having an essentially tubular discharge vessel (1) which consists of glass and is sealed in a gas-tight manner at the ends, having a filling comprising a noble gas mixture and possibly mercury and possibly having a fluorescent coating on the inner wall of the discharge vessel (1), in each case two power supply lines (3, 4) being fused into the two ends of the discharge vessel (1) in a gas-tight manner and running essentially parallel to the longitudinal axis of the discharge vessel (1) in this section, a filament electrode (5), which runs essentially transversely with respect to the longitudinal axis of the discharge vessel, being fixed at the inner end of each of said two power supply lines (3, 4), characterized in that, in order to increase the switching strength of the lamp during coldstarting operation, at least one further electrode (7, 8) consisting of a conductive material is arranged in the region between the filament electrode (5) and the adjoining end of the discharge vessel (1), one end of this further electrode (7, 8) being electrically connected to one of the two power supply lines (3, 4).
2. The low-pressure discharge lamp as claimed in claim 1, characterized in that, in a vertical view of the plane formed by the two power supply lines (3, 4) and the filament electrode (5), the further electrode (7, 8) lies largely between the two power supply lines (3, 4).
3. The low-pressure discharge lamp as claimed in claim 1, characterized in that the conductive material of the further electrode (7, 8) has a high coefficient for secondary electron emission.

- . 4. The low-pressure discharge lamp as claimed in claim 1, characterized in that the conductive material of the further electrode (7, 8) is nickel and/or ruthenium.
- 5 5. The low-pressure discharge lamp as claimed in claim 1, characterized in that the conductive material of the further electrode (7, 8) is tungsten.

6. The low-pressure discharge lamp as claimed in claim 1, characterized in that the further electrode (7, 8) comprises a wire.
- 5 7. The low-pressure discharge lamp as claimed in claim 6, characterized in that the wire has a wire diameter of between 50 and 150 μm .
- 10 8. The low-pressure discharge lamp as claimed in claim 1, characterized in that the further electrode (7, 8) extends essentially parallel to the axis of the filament electrode (5) from the power supply line (3, 4) to which it is electrically connected in the direction of the other power supply line (3, 4).
- 15 9. The low-pressure discharge lamp as claimed in claim 8, characterized in that the further electrode (7, 8) extends from the power supply line (3, 4) to which it is electrically connected for 40 to 60% of the distance
20 between the two power supply lines (3, 4) in the direction of other power supply line (3, 4).
- 25 10. The low-pressure discharge lamp as claimed in claim 1, characterized in that the free end of the further electrode (7, 8) is bent back in the direction of the filament electrode (5).
- 30 11. The low-pressure discharge lamp as claimed in claim 10, characterized in that the free end of the further electrode (7, 8) has a distance of $(0.2 - 1) \times R_{\text{inner tube}}$ from the axis of the filament electrode (5), $R_{\text{inner tube}}$ being the inner radius of the discharge vessel (1) in this section of the discharge vessel (1).
- 35 12. The low-pressure discharge lamp as claimed in claim 1, characterized in that the further electrode (7, 8) is

fixed to the power supply line in a position in which it is rotated through an angle of less than or equal to 45° in relation to the axis of the filament electrode.

- 5 13. The low-pressure discharge lamp as claimed in claim 1, characterized in that the lamp has two further electrodes (7, 8), in each case one end of each further electrode (7, 8) being connected to one of the two

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power supply lines (3, 4) of the same filament electrode
(5) such that a further electrode (7, 8) is electrically
connected to each of the two power supply lines (3, 4).